Oh? Locating Addresses On The Internet,

Find Your Friends And Email Your Enemies

BY KEVIN M. SAVETZ

The Internet is a vast place. Over a million computers and hundred million users are connected in this sprawling anarchy of data. Both newcomers and old-timers often want to find the electronic address of an associate. With an electronic mail address in hand, you can send electronic notes, love letters, or secret messages to your associates, friends, and enemies.

The problem is finding them.

With so many computer systems and users in the world, it is impossible to keep a complete "white pages" of the Internet. The problem is compounded because people—especially students—come and go from the net all the time. Storing and updating that much information would be an impossible task.

But it's not impossible to find people on the net. Programs exist which, given some amount of information about your victim—er, associate—can help you track down his or her email address. The more information you know about your associate—name, place of business or school, and so on—the higher your chances are. If you want to get in touch with a pal from your past, but you don't know where he works or what city he lives in, you're not likely to locate him, even if he is on the net.

Of course, to be listed in any of these services, you need to have an account on the Internet; and, to some extent, you must want to be found.

The systems we will look at are finger, netfind, the MIT Usenet search, and Knowbot Information System. Each system works differently. Even though you may find someone when using one service, there is, of course, no guarantee she will be listed in another. There is no guarantee you will find her at all.

FINGER

UNIX, VMS, and some other systems support a command called "finger." Finger can give basic information about a user on a given computer. It usually allows searches by first name, last name, or login name. To list users named Ron on your local system, "finger ron" should produce a list of everyone whose name or login contains "Ron." Finger may return information including the user's real name, login, and a phone number and other personal information, if these are supplied.

On many systems, finger allows you to peruse the users of other systems. "Finger ron@hal.gnu.ai.mit.edu" will tell you about the Rons with accounts on a certain computer at Massachusetts Institute of Technology. This in itself is not too powerful, however, because it requires that you know the name of the computer system you are searching. When you are searching for an associate, this usually isn't the case. Once you know the computer system and login name, you really know enough to send electronic mail.

Finger's power, however, grows when used in conjunction with services such as netfind, which scour the network for the names you want, given just an idea of where to look.

EXAMPLE OUTPUT FROM "FINGER" COMMAND

```
% finger john@euclid.humboldt.edu
[euclid.humboldt.edu]
Login name: john   In real life: John
Wallace
Directory: /usr/john
No Plan.
Login name: jmoore  In real life: John
Moore
Directory: /usr/jmoore
No Plan.
```

NETFIND

Netfind is a "white pages" service that uses a number of sources to find electronic mail addresses. Netfind can locate users at over five thousand sites worldwide. The majority of the domains it can access are educational institutions, so this service is very good for locating students at school. However, netfind can also access a vast number of commercial, military, government, and other organizational computers. Its operators estimate that it can locate about 5.5 million people. Netfind is used interactively, and is relatively quick.

It works best for sites that do not insulate themselves from the outside world. Some sites, for privacy or security reasons, do not allow offsite users to finger their computers or access other information. Although this may be best for the company, it hinders netfind, which uses this information, when it can, to search.

Netfind can be used either as a client program running on your local computer, or accessed by telneting to one of several public servers. The public servers don't require the netfind software to be on your local host, so we'll look at that venue for searching.

To use netfind, telnet to bruno.cs.colorado.edu (or another netfind server, listed below) armed with the name to search for, and his or her place of business or school. At the "login" prompt, type "netfind." Servers are limited to a certain number of searches at any given time, so you may be denied access. If so, try again later or choose a different server.

Netfind displays a menu of selections. To search for a specific person, enter "2" (search). You'll then be asked to "enter person and keys." Enter one word for the name, followed by one or more words defining where to look. For instance, "simon san diego state univer-

PUBLIC NETFIND SERVERS

bruno.cs.colorado.edu (128.138.243.151) [University of Colorado]
archie.au (139.130.4.6) [AARNet, Melbourne, Australia]
malloco.ing.puc.cl (146.155.1.43) [Catholic University of Chile, Santiago]
mudhoney.micro.umn.edu (134.84.132.7) [University of Minnesota, Minneapolis]
netfind.oc.com (192.82.215.92) [OpenConnect System, Dallas, Texas]
redmont.cis.uab.edu (138.26.64.4) [University of Alabama, Birmingham]
sun.uakom.cs (192.108.131.11) [Slovak Academy of Sciences]

Copyright © 1993 by Kevin Savetz. All rights reserved.

sity" will check for San Diego State in netfind's seed database. If it has something to go on, it will begin checking domain names for the keys. If not, try a less restrictive key (in this case, just "san diego.")

Next is a search for hosts. Netfind uses several remote services, including the "finger" command and the Simple Mail Transfer Protocol (STMP) to simultaneously query each computer that might have an account name, in this case "Simon." (It's actually much more complicated than that: a full explanation is available online.)

If netfind finds too many machines that match your keys, it will list them and ask you to choose up to three.

If a potential match is made, netfind gives you as much information as it can. If there is no match, or it can't get access to information from a secure site, you are told why.

Incidentally, choice "3" from the main menu, seed database lookup, lists all the computers associated with an organization, but does not look for a specific person.

KNOWBOT INFORMATION SERVICE

The Knowbot Information Service (KIS) is another "white pages" service that performs a very broad name search, checking MCI Mail, the X.500 White Pages Pilot Project, WHOIS servers at various organizations, and the UNIX "finger" command. It can be used either as a client program resident on your local machine, through email, or by telneting to a public server.

KIS uses subprograms called "Knowbots" to search for information. Each Knowbot looks for specific information from a site, and reports back to the main program with the results.

Two hosts running KIS servers are "nri.reston.va.us" and "sol.bucknell.edu." You can access either one by electronic mail (send mail to netaddress@nri.reston.va.us, for instance) or using telnet (request port 185.) Because searching can take several minutes, I prefer to use the mail method—once KIS knows the results of the search, it mails them back to you.

In the body of your mail message to netaddress, simply put names of your associates, one per line. You may use first and last names or a login, if you know it. Sending "johnson" will search the default list of directory servers for user "johnson." Since KIS checks a predefined set of services, you do not need to supply an organization name to check for.

KIS also includes commands for narrowing your search and searching for an organization, For more help, put "?" or "man" in the body of your mail message.

AN INTERACTIVE NETFIND SESSION

```
Top level choices:
 1. Help
 2. Search
 3. Seed database lookup
 4. Options
 5. Quit (exit server)
—> 2
Enter person and keys (blank to exit)
—> simon san diego state
university
( 0) check_name: checking domain
sdsu.edu. Level = 0 ( 1)
check_name: checking domain
sdsu.calstate.edu. Level = 0
The domain 'sdsu.calstate.edu' does
not run its own name servers,
 and there is no aliased domain IP
address for this domain.
 -> Skipping domain search phase for
this domain.
( 0) do_connect: Finger service not
available on host sdsu.edu ->
 cannot do user lookup
---------
Search of domains completed.
Proceeding to search of hosts.
---------
( 0) check_name: checking host
sciences.sdsu.edu. Level = 0
( 2) check_name: checking host
steer.sdsu.edu. Level = 0
( 3) check_name: checking host
saturn.sdsu.edu. Level = 0
( 4) check_name: checking host
ucselx.sdsu.edu. Level = 0
SYSTEM: sunstroke.sdsu.edu
 Login name: dsimon   In real life:
David Simon
 Directory: /sunstroke/faculty/dsimon
Shell: /bin/csh
 Last login Fri Dec 4 16:09 on pop
from lif_sci_s1-mac7
 No unread mail
 No Plan.
 Login name: alsimon   In real life: Al
Simon
 Directory: /sunstroke/faculty/alsimon
Shell: /bin/csh
 Last login Thu Dec 3 11:50 on ttyp7
from mdmsrv9.sdsu.edu
 Mail last read Wed Dec 2 11:46:40
1992
 No Plan.
( 9) do_connect: Finger service not
available on host birooni.sdsu.edu ->
 cannot do user lookup
```

SUMMARY:
- Found multiple matches for "simon", so unable to determine most recent/last login information, or most promising electronic mail information.
Please look at the above search history and decide for yourself which is best.

USENET SEARCH

The Usenet search is an interesting variation in ways to look for people on the net. This method compares your search request to a database of people who have recently posted messages to the Usenet. (The Usenet is a worldwide bulletin board of sorts, where people send public messages on every imaginable topic.)

SAMPLE OUTPUT FROM THE USENET SEARCH

```
send usenet-addresses/George
Washington
>From daemon@pit-
manager.MIT.EDU Tue Dec 15
16:21:37 1992
Date: Tue, 15 Dec 92 19:21:04 -0500
To: waffle@steer.sdsu.edu (waffle)
Subject: mail-server: "send usenet-
addresses/George Washington"
gw@washington.burial.site (George
Washington) (Oct 11 92)
hustler@u.washington.edu
(hustler@milton.u.washington.edu)
(Apr 1 92)
Goofster@u.washington.edu
(goofster@milton.u.washington.edu)
(Apr 1 92)
George Porter
<george_porter@LIBRARY.LIB.NCSU.EDU>
(Apr 12 92)
George.Izumi@p0.f129.n102.z1.fidonet.org
(George Izumi) (Apr 12 92)
george@cs.purdue.EDU (Michael J.
George) (Apr 12 92)
George.Dvorak@f303.n273.z1.fidonet.org
(George Dvorak) (Apr 1 92)
george@eos03a-16pa.eos.ncsu.edu
(George J. Gad El-Karim) (Apr 12
92)
george_mah@.sfu.ca (george mah)
(Apr 1 92)
gng@gaia.UUCP (George George)
(Apr 1 92)
george@jvd.msk.su (George
Tereshko) (Apr 1 92)
```

This search, obviously, can only find people who have recently sent a message to the Usenet. If you think your associate is a regular poster to the Usenet, you might want to try this. You use the Usenet search by sending electronic mail to a server that processes your query and replies by email. Thus, it is not interactive like the Netfind search, and it may take longer to get a reply. This search is beneficial because you do not need to know where your associate works or goes to school—just a name can be enough.

To look up a name, send a message to

"mail-server@pit-manager.mit.edu." The server will ignore the subject line. In the body of your message, send "send usenet-addresses/keys." "Keys" can be one or more search words separated by spaces. It can be the first and last name, a login name, or the name of an organization. (If you send only the name of an organization, you will receive a list of all the posters from that place.)

You can guess about the words that may appear in the address of the person you are searching for: it's okay if some of the keys don't appear in the address. The search program uses "fuzzy" matching and tries to find addresses that are closest to your keywords. Forty or fewer matches will be returned, listed from "best" to "worst."

For more help, send a message to mail-server@pit-manager.mit.edu with a message body of "send usenet-addresses/help." If you need to talk to a real person, send mail to "postmaster@pit-manager.mit.edu." The online help should be all you need, though.

AN INTERACTIVE KIS SEARCH

```
Knowbot Information Service (V1.0).
Copyright CNRI 1990. All Rights Reserved.
Try ? or man for help.
> Smedley
Name: John X. Smedley
Organization: Smedley Research
City: New York
State: NY
Country: US
E-Mail: 123-4692@mcimail.com
Source: mcimail
Ident: 123-4692
Last Updated: unknown
```

WHAT ABOUT PRIVACY?

Each of these information resources uses only "public" information from computers that are open to outside access from the Internet. As mentioned before, some sites are more limited for privacy or security reasons. In open sites, however, some users may be unaware that information about them is available. Sometimes, standard information available includes not only an electronic mail address, but a phone number, fax number, or office address.

If you feel the need to protect yourself, you are not totally without aid. You may be able to limit the amount of information available to the outside world. On some UNIX systems, the command "chfn" (change finger name) will allow you to change your name and other data as it appears on your system. Also, many computers allow you to create a file called ".plan" for information about yourself—this is readable by anyone. Don't keep anything there that you don't want the world to know.

The help text on netfind sums it up best: "I have come to the conclusion that resource discovery and directory service are fundamentally at tension with privacy. I believe that while policies are needed, ultimately users need to be made aware that participation in an 'electronic society' brings with it some loss of privacy, just as being a member of any society does."

FOR MORE INFORMATION

If all of these services fail you, don't despair. There are other services out there, run by businesses that list only their employees, for instance. Although some of these services are checked by KIS and netfind, many are not.

Also, don't forget the other ways to find someone: pick up the phone and call, or write a letter. Remember that even if you do find the right email address, the owner may never check his or her mail!

For more information, read: "FAQ: How to find people's E-mail addresses," available from mail-server@pit-manager.mit.edu by sending "send usenet/news.answers/finding-addresses."

A useful book is *!%@:: A Directory of Electronic Mail Addressing and Networks* by Donnalyn Frey and Rick Adams. ISBN 0-937175-15-3, published by O'Reilly, Email nuts@ora.com for information. (Current edition published in January 1991; $27.95 cover price.)

Another is *Zen and the Art of the Internet: A Beginner's Guide*, by Brendan Kehoe, Prentice Hall, July 1992. ISBN 0-13-010778-6. (Second edition.) The first edition is available for free online. To find out how to get it, send mail to archive-server@cs.widener.edu with "send zen hints" in the body of the message. ■

NOVELL®

C.N.E.

For a Higher Degree of Mastery

Experts agree, just as some degrees help you in business or science, your Novell CNE and ECNE degree increase your expertise as a networking specialist. That's why more and more companies are either hiring or training their own CNEs at Certified Network Educators.

CNE Quick Course

If you're already proficient with Novell, it's easier than ever to obtain your degree by registering for the CNE Quick Course. Produced by Novell's CNE program developer, the CNE Quick Course is offered only by Certified Network Educators, and allows CNE certification in just 5 days.

CNE/ECNE Certification is closer than you think.

Novell Authorized Education Center

Call 1-800-LAN-STUDY
(800 -526-7883)
• Woodland Hills
• San Francisco

Certified Network Educators

Be sure to ask for a free CNE ASSESSMENT TEST DISK.

FIRST TIME EVER, SAVE BIG $$$

DIRT CHEAP

ASSEMBLE YOUR OWN...

SPARC/UNIX Workstation

or

READY MADE

•NEW OR USED CPU BOARDS • EXTERNAL PERIPHERALS FOR SPARC • CHASSIS/POWER SUPPLY • MEMORY • CABLES • SOLARIS O/S • PC-NFS • ISLAND GRAPHICS • 10 BASET HUBS • SBUS ADD-ON AND MUCH MORE!

(ALSO SYSTEMS ADMINISTRATION ON SPARCS AND PC'S FOR ONLY $250 PER MONTH) BASED ON CONFIGURATIONS

CALL 1-800-22SUNAR

or (408) 982-0288 • FAX: (408) 982-9369

SUNAR SYSTEMS

THE COMPLETE SOURCE FOR SPARC/UNIX NETWORKS

E-Mail: sunar@netcom.com
3350 Scott Blvd. Ste. 1901
Santa Clara, Ca 95054

SPARC is a respected trademark of SPARC Int. • Solaris and PC-NFS is a respected trademark of SunSoft